



ALTERNATIVE TO PTO/SB/08a/b (06-03)

Substitute for form 1449/PTO		<b>Complete if Known</b>			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/822594		
		Filing Date	April 12, 2004		
		First Named Inventor	Torbjörn Gårdenfors		
		An Unit	Not Assigned		
		Examiner Name	Not Assigned		
Sheet	1	of	1	Attorney Docket Number	34650-00179USC3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
BZ	A1	US-3324396	06-06-1987	Schneider	
	A2	US-4656463	04-07-1987	Anders et al.	
	A3	US-5140286	08-18-1992	Black et al.	
	A4	US-5265267	11-23-1993	Martin et al.	
	A5	US-5323332	06-21-1994	Smith et al.	
	A6	US-5324396	06-28-1994	Ferron et al.	
	A7	US-5335361	08-02-1994	Ghaem	
	A8	US-5390363	02-14-1995	Mirtich et al.	
	A9	US-5402087	03-28-1995	Gorczak	
	A10	US-5410745	04-25-1995	Friesen et al.	
	A11	US-5428835	06-27-1995	Okanobu	
	A12	US-5428837	06-27-1995	Bayruns et al.	
	A13	US-5481224	01-02-1996	Kimura	
	A14	US-5528769	06-18-1996	Berenz et al.	
	A15	US-5598405	01-28-1997	Hirose	
	A16	US-5734970	03-31-1998	Saito	
	A17	US-5740522	04-14-1998	Dolman et al.	
	A18	US-5745843	04-28-1998	Wetters et al.	
JO	A19	US-5758265	05-26-1998	Okanobu	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
		Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)	MM-DD-YYYY			
BZ	B1	DE19502111A1	01-24-1995	Hirose	English Abstract	
	B2	GB2296610A	07-03-1996	Okanobu		

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 601.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
BZ	C1	Performance Evaluation of a Single Chip Radio Transceiver; KENDAL MCNAUGHT-DAVIS HESS ET AL.; National Semiconductor Corporation; XP000593123; Vehicular Technology Conference, Mobile Technology for the Human Race Atlanta, April 28-May 1, 1996; Institute of Electrical and Electronics Engineers; Published 4/28/96; Pages 1048-1051.			
BZ	C2	The Communication Handbook; JERRY D. GIBSON; A CRC handbook published in cooperation with IEEE Press; Cover Pages and Pages 87-93.			

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER	Date Considered	2/23/05
-----------------------	-------------------------------------	--------------------	---------

DALLAS2 1042659v1 34650-00179USC3

ALTERNATIVE TO PTO/RS/0330 (08-03)

Substitute for form 1448/PTO		<b>Complete If Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/822594-Conf. #2887
		Filing Date	April 12, 2004
		First Named Inventor	Torbjörn Gårdenfors
		Art Unit	2835
		Examiner Name	B. A. Zimmerman
Sheet	1	of	8
		Attorney Docket Number	34650-00178USC3

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.	Document Number Numbering Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Grant Document
62	A1	US-4,888,557	12-19-1989	Puckette, IV et al.
	A2	US-5,241,702	08-31-1989	Dent
	A3	US-5,802,463	09-01-1998	Zuckerman
	A4	US-5,828,956	10-27-1998	Lipowski et al.
	A5	US-5,876,212	02-23-1999	Fleek et al.
	A6	US-5,339,463	08-18-1994	Hansen
	A7	US-5,369,470	11-29-1994	Hansen
	A8	US-5,716,629	02-03-1998	Klanush et al.
	A9	US-5,404,689	04-04-1995	Bijker et al.
	A10	US-5,561,689	10-01-1998	Fleek et al.
	A11	US-5,838,730	11-17-1998	Cripps
	A12	US-5,781,188	06-12-1998	Guegnaud et al.
	A13	US-5,649,288	07-16-1997	De Lee, Jr., et al.
	A14	US-5,367,539	11-22-1994	Copley
	A15	US-5,734,978	03-31-1998	Bartachi et al.
	A16	US-5,694,417	12-02-1997	Andren et al.
	A17	US-5,164,829	03-18-1993	Schoffel
	A18	US-5,584,088	12-10-1998	Mohindra
	A19	US-5,890,055	08-30-1999	Chu et al.
	A20	US-5,781,847	07-14-1998	Clarke et al.
	A21	US-5,896,375	04-20-1999	Dant et al.
	A22	US-5,767,531	06-26-1998	Tomesen et al.
	A23	US-5,481,487	02-13-1998	Fehér
	A24	US-5,802,117	09-01-1998	Ghosh
	A25	US-5,808,669	09-15-1998	Wuppermann et al.
	A26	US-5,809,016	09-15-1998	Elliott et al.
	A27	US-5,808,088	06-15-1998	Martinez et al.
	A28	US-5,822,378	10-13-1998	Van Veldhuizen
	A29	US-5,848,107	12-08-1998	Philippe
	A30	US-5,710,883	01-20-1998	Brekelmans
	A31	US-5,272,634	12-21-1993	Vromans et al.
	A32	US-5,751,249	05-12-1998	Baltus et al.
	A33	US-5,781,613	08-03-1998	Saunders et al.
	A34	US-5,784,414	07-21-1998	Bruckers et al.
	A35	US-5,798,730	08-18-1998	Belec
	A36	US-5,799,042	08-25-1998	Xiao
	A37	US-5,654,873	12-29-1998	Holtvoeth
	A38	US-5,548,831	08-20-1998	Bijker et al.
	A39	US-5,241,581	08-31-1993	Barnard
	A40	US-5,438,892	08-01-1995	Mohindra
	A41	US-5,604,927	02-18-1997	Moore
	A42	US-5,619,491	04-08-1997	Panzer
	A43	US-5,648,882	08-20-1998	Arjaj et al.
	A44	US-5,155,862	10-13-1992	Hansen
	A45	US-4,470,071	08-04-1984	Rindal
	A46	US-4,898,374	01-23-1990	Waugh et al.
63	A47	US-5,033,110	07-18-1991	Harman
Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER			Date Considered
				11/3/05

DALLAS2 1104518V1 34650-00178USC3

ALTERNATIVE TO PTO/BB88a/b (08-03)

Substitute for form 1449/PTO		<b>Complete If Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		Application Number	10/822594-Conf. #2867
		Filing Date	April 12, 2004
		First Named Inventor	Torbjörn Gårdenfors
		Art Unit	2835
		Examiner Name	B. A. Zimmerman
Sheet	2	of	6
		Attorney Docket Number	34650-00179USC3

51	A48	US-5,079,528	01-07-1992	Hack	
	A49	US-5,162,723	11-10-1992	Marzalek et al.	
	A50	US-5,307,917	04-28-1994	Rich	
	A51	US-5,313,173	05-17-1994	Lample	
	A52	US-5,410,733	04-25-1995	Niva et al.	
	A53	US-5,471,885	11-28-1995	Pace et al.	
	A54	US-5,550,865	08-27-1998	Cripps	
	A55	US-5,673,323	09-30-1997	Schotz et al.	
	A56	US-5,715,281	02-03-1998	Bly, deceased, et al.	
	A57	US-5,724,893	03-03-1998	Baker et al.	
	A58	US-5,832,043	11-03-1998	Eory	
	A59	US-5,867,535	02-02-1999	Phillips et al.	
	A60	US-6,006,081	12-21-1999	Moore	
	A61	US-6,374,094	04-18-2002	Zappala	
	A62	US-4,523,324	08-11-1985	Marshall	
	A63	US-4,718,113	01-05-1988	Rother	
	A64	US-5,126,682	08-30-1992	Weinberg	
	A65	US-5,251,218	10-05-1993	Stone et al.	
	A66	US-5,263,194	11-16-1993	Ragan	
	A67	US-5,828,708	10-27-1998	Kroeger et al.	
	A68	US-5,999,802	12-07-1999	Aschwanden	
	A69	US-6,028,885	02-22-2000	Minarik et al.	
	A70	US-6,035,188	03-07-2000	Moore	
	A71	US-6,374,093	04-18-2002	Pasola	
	A72	US-6,680,447	05-06-2003	Rahman et al.	
	A73	US-6,597,748	07-22-2003	Hietala et al.	
	A74	US-5,550,586	11-24-1995	Stroile	
	A75	US-5,710,898	01-20-1998	Opas	
	A76	US-5,863,273	12-10-1998	Bole	
	A77	US-5,282,228	12-09-1991	Scott	
	A78	US-4,476,585	01-25-1982	Reed	
	A79	US-5,517,530	08-28-1995	Gardner	
	A80	US-4,817,198	12-09-1985	Rinderle	
	A81	US-6,633,550	10-14-2003	Gårdenfors et al.	
	A82	US-6,477,148	11-05-2002	Gårdenfors et al.	
	A83	US-5,826,513	10-14-2003	Suominen	
	A84	US-4,551,888	11-05-1988	Craiglow	
	A85	US-4,893,318	01-09-1980	Janc et al.	
	A86	US-4,972,455	11-20-1990	Phillips et al.	
	A87	US-5,020,092	05-28-1991	Phillips et al.	
	A88	US-6,052,027	09-24-1991	Peklambe et al.	
	A89	US-5,396,620	03-07-1995	Deeges	
	A90	US-5,537,435	07-16-1998	Camey et al.	
	A91	US-5,619,538	04-09-1997	Gourgue	
	A92	US-5,640,416	08-17-1997	Chalmers	
	A93	US-5,681,487	08-26-1997	Targoff	
	A94	US-4,653,117	03-24-1987	Hack	
	A95	US-4,852,123	07-25-1989	Bickley et al.	
	A96	US-5,222,144	08-22-1983	Whitkhan	
	A97	US-4,633,316	01-21-1981	Kasperkovitz	
52	A98	US-4,588,088	02-04-1986	Noide et al.	
Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER			Date Considered	11/7/05

DALLAB2 1104515v1 34650-00179USC3

ALTERNATIVE TO PTO/8808a,b (08-03)

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b> Application Number 10/822594-Conf. #2867 Filing Date April 12, 2004 First Named Inventor Torbjörn Gärdenfors An Unit 2635 Examiner Name B. A. Zimmerman Attorney Docket Number 34850-00179USC3	
Sheet	3	of	6

52	A99	US-4,528,328	08-11-1988	Kasperkovitz
	A100	US-4,426,735	01-17-1984	Kasperkovitz
	A101	US-5,801,349	05-04-1999	Guegnaud et al.
	A102	US-5,621,548	05-28-1998	Sumawara
	A103	US-5,430,770	07-04-1998	Abboy
	A104	US-5,440,587	08-08-1999	Ishikawa et al.
	A105	US-5,212,825	03-18-1993	Layton
	A106	US-5,134,404	07-28-1992	Peterson
	A107	US-4,776,039	10-04-1988	Akaiwa
	A108	US-4,633,315	12-30-1988	Kasperkovitz
	A109	US-4,637,853	08-08-1989	Heck
	A110	US-4,828,443	05-15-1990	Reich
	A111	US-6,633,979	10-14-2003	Smeets
52	A112	US-2002/0090924	07-11-2002	Suominen

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>8</sup>
		Country Code <sup>1</sup>	Number and Code <sup>2</sup> (if known)			
B2	B1	WO-02	85718 A2	05-02-2002	Sayers et al.	
	B2	EP-1	249 078 B1	02-18-2004	Sayers et al.	
	B3	EP-0	470 481 B1	10-30-1998	Wignot et al.	
	B4	EP-0	472 119 B1	12-20-1995	Wignot et al.	
	B5	EP-0	612 974 B1	08-28-1998	Kim	
	B6	EP-0	470 484 B1	09-25-1998	Wignot et al.	
	B7	EP-	1058399	12-08-2000	Nacki et al.	
	B8	GB-2285	513	05-28-1998	Forster	
	B9	EP-0855	804	07-28-1998	Suominen	
	B10	WO-85	10889	04-20-1995	Dent	
	B11	WO-88	28946	09-19-1993	Camey et al.	
	B12	EP-0	598 227 A1	05-25-1994	Kluze et al.	
	B13	GB-2052	196	01-21-1981	Richardson	
	B14	CA-1,304,788		07-07-1992	Janc et al.	
	B15	CA-1,318,358		05-25-1993	Janc et al.	
B2	B16	WO-88	11672	03-18-1988	Suominen	

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard 87.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard 87. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>8</sup>
52	C1	ERICSSON, Ericsson Technology Licensing - Bluetooth, pp. 1-5; <a href="http://www.ericsson.com/bluetooth">www.ericsson.com/bluetooth</a> < <a href="http://www.ericsson.com/bluetooth">http://www.ericsson.com/bluetooth</a> >; July 23, 2004			
52	C2	GENTILE, KEN, Fundamentals of Digital Quadrature Modulation; "RF Mixed Signals", pp. 1-8; <a href="http://www.rfdesign.com">www.rfdesign.com</a> < <a href="http://www.rfdesign.com">http://www.rfdesign.com</a> >; February 2003			
52	C3	Wireless, RF, and Cable; Application Note 688, pp. 1-7; <a href="http://www.maxim-ic.com">www.maxim-ic.com</a>			
Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER			Date Considered	11/7/05

DALLAS2 1104510v1 34850-00179USC3

ALTERNATIVE TO PTO/USCA/0 (08-03)

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/822594-Conf. #2887
		Filing Date	April 12, 2004
		First Named Inventor	Torbjörn Gårdenfors
		Art Unit	2835
		Examiner Name	B. A. Zimmerman
Sheet	4	of	8
		Attorney Docket Number	34850-00179USC3

		<a href="http://www.maxim-ic.com">http://www.maxim-ic.com</a> ; October 13, 2000	
88	C4	STEBER, J. M., "PSK Demodulation" (Part 1); WJ Tech-note; Vol. 11, No. 2, pp. 1-8; WJ Communications, Inc.; San Jose, CA; March 1984	
	C5	FAGUE, D. E. et al., "Performance Evaluation of a Low Cost, Solid State Radio Front End for DECT"; IEEE, pp. 512-515; 1994	
	C8	MIN, J., "Analysis & Design of a Frequency-Hopped Spread-Spectrum Transceiver for Wireless Personal Communications"; UCLA Electrical Engineering Dept.; Los Angeles, CA; pp. 1-168; January, 1998	
	C7	STEYAERT, M. et al., "Analog Polyphase Filters in Highly Integrated Receivers", AACD; Heverlee, Belgium; pp. 364-369; March 30, 1994	
	C8	STEYAERT, M. et al., "Analog Integrated Polyphase Filters", Analog Circuit Design; Eindhoven, Netherlands; pp. 146-166; 1995	
	C9	DEFRANCE, J. J., Communications Electronics Circuits; Holt Rinehart & Winston, New York, NY; pp. 262-265; 1986	
	C10	ROBERTS, R.B., Television Engineering; Pentech Press, London, England; pp. 45-47; 1985	
	C11	BALTUS, P. et al., "DECT Zero IF Receiver Front End"; Analog Circuit Design; Kluwer Academic Publishers; pp. 295-318; Netherlands; 1994	
	C12	RABAEY, D. et al., "The Challenges for Analog Circuit Design in Mobile Radio VLSI Chips"; Analog Circuit Design; Kluwer Academic Publishers, Netherlands; pp. 225-236; 1994	
	C13	SEVENHANS, J. et al., "An Integrated Si Bipolar RF Transceiver for a Zero IF 900 MHz GSM Digital Mobile Radio Frontend of a Hand Portable Phone"; 1991 IEEE Custom Integrated Circuits Conference; pp. 7.7.1 - 7.7.4; 1991	
	C14	OKANOBU, T. et al., "Advanced Low Voltage Single Chip Radio IC"; IEEE Transactions on Consumer Electronics; Vol. 38 No. 3; pp. 465-475; August 1992	
	C15	CROLS, J. et al., "A Fully Integrated 900 MHz CMOS Double Quadrature Downconverter"; 1995 IEEE International Solid-State Conference; pp. 136-137; February 1995	
	C16	MIN, J., LIU et al., "A Low-Power Correlation Detector for Binary FSK Direct-Conversion Receivers"; UCLA, Los Angeles, CA; June 22, 1995	
	C17	CHAN, P.Y. et al., "A Highly Linear 1-GHz CMOS Downconversion Mixer"; European Solid State Circuits Conference; Seville, Spain; pp. 210-213, slides p. 1-25; September 22, 1993	
	C18	ABIDI, A. A., "Radio-Frequency Integrated Circuits for Portable Communications"; Custom IC Conference, San Diego, CA; pp. 151-158; May 1994	
	C19	ROFOUGARAN, A. et al., "A 1 GHz CMOS RF Front-End IC with Wide Dynamic Range"; European Solid State Circuits Conference, Lille, France, p. 250-253, slides p. 1-23; September 1995	
	C20	ROFOUGARAN, A. et al., "A 900 MHz CMOS LC-Oscillator with Quadrature Outputs"; International Solid-State Circuits Conference, p. 1-10; 1998	
	C21	BURT, A., "Direct Conversion Receivers Come of Age in the Paging World"; GEC Review, Vol. 7 No. 3, p. 158-160; 1992	
	C22	ABIDI, A. A., "Low-Power Radio-Frequency IC's for Portable Communications"; Proceedings of IEEE, Vol. 83 No. 4, p. 544-569; April 1995	
	C23	ABIDI, A. A., "Noise in Active Resonators and the Available Dynamic Range"; IEEE Transactions on Circuits and Systems, Vol. 39 No. 4, p. 296-298; April 1992	
	C24	TUCKER, D. G., "The History of the Homodyne and Synchrodyne"; Journal of the British Institution of Radio Engineers, p. 143-154; January 4, 1984	
	C25	VANCE, I. A. W., "Fully Integrated Radio Paging Receiver"; IEE Proc.; Vol. 129, No. 1; pp. 2-8; February 1982	
	C26	YAMASAKI, K. et al., "Credit Card Size Numeric Display Pager with Micro-Strip Antenna for 900 MHz Band"; NEC Res. & Develop., Vol. 34, No. 1; pp. 84-85; January 1993	
	C27	TANAKA, S. et al., "High-Frequency, Low-Voltage Circuit Technology for VHF Paging Receiver"; IEICE Trans. Fundamentals; Vol. E76-A, No. 2; pp. 166-183; February 1993	
57	C28	YAMASAKI, K. et al., "Compact Size Numeric Display Pager with new Receiving System";	
Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER		Date Considered 11/7/05

DALLA82 1104515v1 34850-00179USC3

ALTERNATIVE TO PTO/88/06a/b (06-03)

Substitute for form 1449/PTO		<b>Complete if Known</b>			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/822594-Conf. #2867		
		Filing Date	April 12, 2004		
		First Named Inventor	Torbjörn Gårdenfors		
		Art Unit	2835		
		Examiner Name	B. A. Zimmerman		
Sheet	5	of	6	Attorney Docket Number	34850-00178USC3

		NEC Res. & Develop., Vol. 33, No. 1; pp. 73-81; January 1992	
52	C29	MARSHALL, C. et al., "A 2.7V GSM Transceiver ICs with On-Chip Filtering"; Paper TA 8.7, IEEE ISSCC; pp. 148-149; February 18, 1995	
	C30	LIN, Y.-M., KIM, B., & GRAY, P. R., A 13-b 2.6-MHz Self-Calibrated Pipelined A/D Converter in 3 $\mu$ m CMOS; IEEE Journal of Solid-State Circuits; Vol. 26, No. 4; pp. 628-638; April 1991	
	C31	LEESON, D.B., "A Simple Model of Feedback Oscillator Noise Spectrum"; IEEE Proceedings Letters; pp. 329-220; February 1996	
	C32	CHANG, H. Y.-C., ABIDI, A.A. & GAITAN, M., Large-Suspended Inductors on Silicon and Their Use in a 2- $\mu$ m CMOS RF Amplifier; IEEE Electronic Device Letters; Vol. 14, No. 5; pp. 246-248; May 1993	
	C33	ENAM, S. K. et al., "NMOS IC's for Clock and Data Regeneration in Gigabit-per-Second Optical-Fiber Receivers"; IEEE Journal of Solid-State Circuits; Vol. 27, No. 12; pp. 1783-1774; December 1992	
	C34	BUCHWALD, A.W. et al., "High Speed Voltage-Controlled Oscillator with Quadrature Outputs"; pp. 1-2; December 19, 1990	
	C35	THOMAS, V. et al., "A One-Chip 2GHz Single Superhet Receiver for 2Mb/s FSK Radio Communication"; Paper WP 2.7; Digest of Technical Papers; IEEE ISSCC; pp. 42-43; February 18, 1994	
	C36	VEIT, W. et al., "A 2.7V 800 MHz-2.1GHz Transceiver Chipset for Mobile Radio Applications in 25GHz ft Si-Bipolar"; 1994 Bi-Polar/BiCMOS Circuits & Technology Meeting 11.2; pp. 175-178; 1994	
	C37	NEGUS, K. et al., "Highly-Integrated Transmitter RFIC with Monolithic Narrowband Tuning for Digital Cellular Handsets"; Paper WP 2.5; IEEE ISSCC, Digest of Technical Papers; pp. 38-39; February 18, 1994	
	C38	TAKAHASHI, C. et al., "A 1.8GHz 8l Direct Conversion Receiver IC for QPSK Modulation Systems"; IEEE ISSCC, Paper TA 8.2, Digest of Technical Papers; pp. 138-139; February 16, 1995	
	C39	LIU, H.-C. et al., "A Low-Power Baseband Receiver IC for Frequency-Hopped Spread Spectrum Applications"; IEEE Custom Integrated Circuits Conference; pp. 311-314; 1995	
	C40	THAMSIRIANUNT, M. et al., "CMOS VCOs for PLL Frequency Synthesis in GHz Digital Mobile Radio Communications"; IEEE Custom Integrated Circuits Conference; pp. 331-334; 1995	
	C41	MONIZ, J.M. et al., "Improving the Dynamic Range of Si MMIC Gilbert Cell Mixers for Homodyne Receivers"; IEEE 1994 Microwave and Millimeter-Wave Monolithic Circuits Symposium; pp. 103-106; 1994	
	C42	WEAVER, D. K., JR., "A Third Method of Generation and Detection of Single-Sideband Signals"; Proceedings of the IRE; pp. 1703-1705; December 1956	
	C43	KOULLIAS, I. A. et al., "A 900MHz Transceiver Chip Set for Dual-Mode Cellular Radio Mobile Terminals"; IEEE ISSCC; Paper TP 8.2; pp. 140-141; February 25, 1993	
	C44	MIN, J. et al., "An All-CMOS Architecture for a Low-Power Frequency-Hopped 900 MHz Spread Spectrum Transceiver"; IEEE 1994 Custom Integrated Circuits Conference; pp. 379-382; 1994	
	C45	WILSON, J. F. et al., "A Single-Chip VHF and UHF Receiver for Radio Paging"; IEEE Journal of Solid-State Circuits; Vol. 26, No. 12; pp. 1944-1950; December 1991	
	C46	DEENEY, M., "Software Radio - the End of RF Design?"; Teltec Ireland, A Supplement to Technology Ireland; Telecommunications Research & Development; November 1998	
	C47	Standard Search Report for RS 99030 dated July 23, 1997 completed July 21, 1997	
	C48	BAINES, R., "The DSP Bottleneck"; IEEE Communications Magazine; Vol. 33, No. 5; pp. 46-54; May 1995	
52	C49	GROSHONG, R. et al., "Undersampling Techniques Simplify Digital Radio", Application Note AN-301, published by Analog Devices, Inc., reprinted from Electronic Design; pp. 3-95-3-101; May 23, 1991	

Examiner Signature	BRIAN ZIMMERMAN	Date Considered	11/7/05
PRIMARY EXAMINER			

DALLA82 1104515v1 34850-00178USC3

ALTERNATIVE TO PTO/AB/08a/b (08-08)

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/622594-Conf. #2887		
		Filing Date	April 12, 2004		
		First Named Inventor	Torbjörn Gårdenfors		
		Art Unit	2635		
		Examiner Name	B. A. Zimmerman		
Sheet	8	of	8	Attorney Docket Number	34850-00179USC3

57	C50	VAN DOOREMOLEN, W.H.A. et al, "A Complete FM Radio on a Chip"; Integrated Circuits, Application Note AN192; Philips Semiconductors; December 1991	
	C51	KASPERKOVITZ, D., "An Integrated FM Receiver"; Microelectronics Reliability, v. 21(2); pp. 183-189; 1981	
	C52	KASPERKOVITZ, W.G., "FM Receivers for Mono and Stereo on a Single Chip"; Philips Technical Review; V. 41(8); pp. 169-182; 1983/84	
	C53	OLMSTEAD, C. et al., "Digital IF Processing", RF Design; pp. 30-40; September 1994	
	C54	CAVERS, J. et al., "A DSP-Based Alternative To Direct Conversion Receivers For Digital Mobile Communications"; pp. 2024-2028; IEEE, 1990	
	C55	CAVERS, J. et al., "Adaptive Compensation for Imbalance and Offset Losses in Direct Conversion Transceivers"; IEEE Transactions On Vehicular Technology; Vol. 42, No. 4; pp. 581-588; November 1993	
	C56	GRAY et al., "Future Directions in Silicon ICs for RF Personal Communications"; Custom Integrated Circuits Conference; pp. 83-90; 1995	
58	C57	PAEZ-BORRALLLO, J. et al., "Self Adjusting Digital Image Rejection Receiver for Mobile Communications"; IEEE Vehicular Technology Conference; Vol. 2; pp. 686-690; March 1997	

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*Applicant's unique citation designation number (optional). \*Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	BRIAN ZIMMERMAN PRIMARY EXAMINER	Date Considered	11/7/05
--------------------	-------------------------------------	-----------------	---------

DALLAS2 1104518v1 34850-00179USC3





ALTERNATIVE TO PTO/SB/08a/b (07-05)

<b>Substitute for form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete If Known</b>	
				Application Number	10/822594-Conf. #2867
				Filing Date	April 12, 2004
				First Named Inventor	Torbjörn Gärdenfors
				Art Unit	2635
				Examiner Name	B. A. Zimmerman
Sheet	1	of	1	Attorney Docket Number	34650-00179USC3

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number-Kind Code <sup>2</sup> (if known)		
B8	A1*	US-4,584,715	04-22-1986	Baars et al.

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)			
B8	B1	EP-0 671 818	09-13-1995	Phonak Communications AG	ABS

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
B8	C1	ATKINSON S., et al, "Fast Silicon Aids rf and System Design", New Electronics, International Thomson Publishing, London, GB, June, 1993, (3 pgs.)	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature	B. Zimmerman	Date Considered	11/7/05
-----------------------	--------------	--------------------	---------

DALLAS2 1128623v1 34650-00179USC3